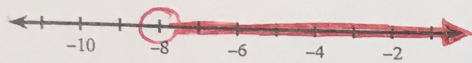


Multi-Step Inequalities - NOTES

Solve each inequality and graph its solution.

1)  $\frac{v}{4} - 10 > -12$



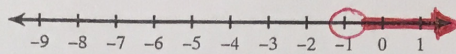
$$\frac{v}{4} - 10 > -12$$

+10            +10

$$4 * \frac{v}{4} > -2 * 4$$

$$v > -8$$

2)  $-3m + 6 > 9$



$$-3m + 6 > 9$$

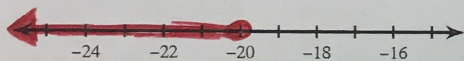
-6            -6

$$-3m > 3$$

-3            -3

$$m > -1$$

3)  $\frac{-10 + x}{3} \leq -10$



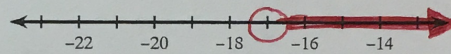
$$3 * \frac{-10 + x}{3} \leq -10 * 3$$

$$-10 + x \leq -30$$

+10            +10

$$x \leq -20$$

4)  $-4m - 2 < 66$



$$-4m - 2 < 66$$

+2            +2

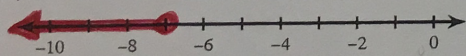
$$-4m < 68$$

-4            -4

$$m > -17$$

DIVIDED BY A NEGATIVE. SWITCH THE SIGN.

5)  $-7(n - 5) \geq 84$



$$-7n + 35 \geq 84$$

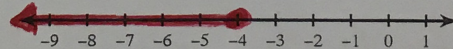
-35            -35

$$-7n \geq 49$$

$$n \leq -7$$

FLIP SIGN

6)  $7(3b - 7) - 2 \leq -135$



$$21b - 49 - 2 \leq -135$$

$$21b - 51 \leq -135$$

+51            +51

$$21b \leq -84$$

21            21

$$b \leq -4$$